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Executive Leadership: Requisite Skills and Developmental Processes for Three- and Four-Star Assignments

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This report describes the investigation of work and skill requirements for three- and four-star general officers. Researchers conducted structured interviews and performed a content analysis to describe the nature of three- and four-star assignments, career paths, and developmental patterns. Requisite skills included consensus building, envisioning, climate setting, self-evaluating, sharing frames of reference, risk taking, and dealing with uncertainty. Implications for executive development are described in terms of level-specific organizational and individual requirements.

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FOREWORD

In 1985, the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) initiated a major research program to enhance leader development. The logic was threefold: identify the critical leader performance requiremnents at successively higher levels of responsibility; identify the necessary knowledge, skills, and abilities underlying capacity to handle increasing responsibility; and develop or recommend improved leader development strategies.

The first step in this program was the identification of the skills, knowledge, and abilities that underlie effective performance at the topmost levels. This report contains an initial content analysis of interviews with 41 three- and four-star general officers. These interviews, and the reviews of assignments, career paths, and development patterns for the entire three- and four-star population at the time of the interviews, provide insight into organizational and individual requirements for senior leadership development.

This research was conducted under a Memorandum of Agreement between ARI and the U.S. Army War College titled "Program of Research in Support of the U.S. Army War College," dated 23 March 1988 and updated 9 July 1992. The work was done by the Executive Development Research Group of the Manpower and Personnel Research Division of ARI with the assistance of CAE-Link Corporation.

EXECUTIVE LEADERSHIP: REQUISITE SKILLS AND DEVELOPMENTAL PROCESSES FOR THREE- AND FOUR-STAR ASSIGNMENTS

EXECUTIVE SUMMARY

Requirement:

Researchers attempted to identify the nature of work and requisite skills in three- and four-star assignments as the basis for an executive development program for the Army's senior leaders.

Procedure:

Interviews were conducted with 8 four-star and 33 three-star general officers. Seventy-two response categories were defined for computerized sorting, followed by content analysis to describe the nature of three- and four-star assignments, requisite skills, working relationships, and developmental processes. The assignments, career paths, and development patterns of the entire three- and four-star population at the time of the interviews were also received and included in the data base.

Two theories were selected as frameworks guiding both data collection and content analysis. The first was Stratified Systems Theory (SST), which posits sequentially increasing levels of conceptual complexity with higher organizational levels. The second was Kegan's (1982) theory of progressive ego states. Using the SST model, organizational mission, requisite work, and leadership issues were described and compared to developmental sequences and level-specific organizational requirements. Implications for executive development were presented in terms of the Army's internal development program and the relationship between organizational requirements and human development.

Findings:

The nature of the work in three- and four-star assignments was found to be in the systems domain as described by SST. Ten of the 13 four-star assignments and 21 of the 47 three-star assignments were found to be dual-reporting, reflecting the Joint/Unified nature of the work at these levels. Requisite skills and knowledge were found generally to reflect the Joint/Unified, international, strategic nature of the assignments. Knowledge components of a frame of reference for decision making included multinational awareness, the exigencies and realities of the Joint/Unified mission, and a systems view of the Army. Skills included

consensus building, anticipating or envisioning, the ability to deal in abstracts and concepts, the ability to establish values and set climates, self-evaluation as part of error-checking, and the ability to share frames of reference with subordinates, take risks, and deal with uncertainty.

Career patterns generally included an early recognition of the value of a broad base of knowledge and experience. Seven of the eight four-stars (87.5%) and 22 of the 33 three-stars (68.8%) included in the interview sample has attended a non-Army school at either the Command and General Staff College or Senior Service level. Extending the analysis to the total three- and four-star population, 75% had non-Army schooling at one level or the other. Other sources of the requisite Joint/Unified, national, and international frames of reference included degrees in international relations, foreign assignments, and prior experience in the Joint/Unified arena.

Organizational structure was modeled to reflect the statutory mission of the Army as a civilian-led provisioning force with Joint warfighting responsibilities. Development and production activities were assigned to the Training and Doctrine Command and the Army Materiel Command, with the Army's product seen as trained troops and materiel for the unified commands. Leadership factors were defined to include working relationships, frame of reference, cognitive complexity, and value setting.

Implications for executive development were described in terms of the unique, level-specific organizational and individual requirements inherent in an internal development program. Major implications identified and described included

- The Army's level-specific changes in requirements and capabilities must be understood by its members at all levels.
- The shift to the executive domain must be a natural progression of cognitive process and schema.
- Centralized career management must be performed by those with appropriate levels of capability.
- Officers selected for the general officer corps should have the cognitive capability and schema to perform at all levels.
- Selection processes at all levels must recognize the value of diversity to the Army.

Utilization of Findings:

These results define organizational and individual standards of performance for three- and four-star general officers. This information served as the basis for DA PAM 600-80 and has been provided to the U.S. Army War College where it constitutes a part of the Core Curriculum in Course 1.

EXECUTIVE LEADERSHIP: REQUISITE SKILLS AND DEVELOPMENTAL PROCESSES FOR THREE- AND FOUR-STAR ASSIGNMENTS

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EXECUTIVE LEADERSHIP: REQUISITE SKILLS AND DEVELOPMENTAL PROCESSES FOR THREE- AND FOUR-STAR ASSIGNMENTS

INTRODUCTION

Background

For the U.S. Army, the last decade has been a time of increased focus on issues related to leadership philosophy, doctrine, and developmental strategies. The major thrust has been toward understanding and preparing for the kinds of leadership required on the increasingly complex and lethal battlefields of today and tomorrow. Heightened lethality and an accelerated pace of events place greater demands for rapid decision making and synchronization of combat actions. Decisions often will need to be made in a battle context of degraded command and control capabilities. In essence, leaders at all levels must make independent decisions, many with split-second timing, but exhibiting the discipline to accomplish the larger combat mission.

This formulation has profound implications for leader development. First, the level of decision making required is far weightier than is usually encountered in garrison life. The implication is that leader decision making in peacetime must be made weightier, so that a leader learns to cope with the stress of making highly consequential decisions. Second, leader development must aim at creating shared frames of reference among leaders across echelons, so that each leader at minimum understands the frame of reference of his seniors at least two echelons higher. The implication is that growth of an Army ready for rapid engagement in a complex battlefield is largely in the hands of the current senior leadership of the Army. Today's leaders must teach their juniors understanding of senior frames of reference to enable them to make the independent, accurate decisions needed in distributed and rapidly-changing battlefield environments.

A number of events occurred in the late 1970s and early 1980s that were part of a new initiative in Army leadership:

1. A decision was made to establish the Center for Army Leadership at Fort Leavenworth to enhance the Army's capability for modernizing leadership doctrine and instruction.

2. The basic leadership doctrine for company grade commissioned and non-commissioned officers (FM 22-100) was revised and updated.

3. High-level conferences and meetings produced decisions in favor of a series of leadership doctrinal manuals to parallel "how-to-fight" manuals, perhaps as many as three, each dealing with a separate level or echelon of leadership.

4. A further decision was made to begin a major and concerted effort to create a sequential and progressive leader development system that would have its highest priority to create a "war reserve" of leaders capable of functioning well on future battlefields.

The initiative accelerated in 1984, with the formation of a Senior Leadership Coordinating Committee (SLCC) to oversee work at the senior levels. Initial policy was formulated in AR 600-100 to define three levels of leadership requirements (direct, senior, and executive), each with unique requirements. The SLCC also approved exploration of the feasibility of developing concept material that might lead to some form of executive-level doctrine. Unlike doctrine at lower levels, this would not be used to guide "instruction" of senior leaders. Instead, its intent was to establish a set of guiding principles, establishing long-range targets in a career-long development system, and to discipline this system to be purposefully sequential and progressive. The Army Research Institute (ARI) was tasked to support the SLCC in developing the conceptual material.

Project Synopsis

To implement this tasking, a long-range plan was developed jointly by the Leader Policy Division of the Office of the Deputy Chief of Staff for Personnel (ODCSPER) of the Department of the Army (DA), and the Executive Development Research Group (EDRG) of ARI. The first step was to gain an understanding of the nature of work at the executive level of the Army, the positions held by three- and four-star general officers and members of the Army's Senior Executive Service (SES). This would serve as a basis for subsequent writing of executive-level concept material, and for initial designs of the leader development system.

In addition to gaining a fundamental understanding of the Army's executive-level work, a second goal was to test the potential utility of a theory developed by Jaques (1976). In his General Theory of Bureaucracy, Jaques provides descriptions of requisitely structured organizations, and of the work required at each level. This theory was seen as having significant potential for understanding the nature of leadership within the total Army organization, and for structuring a sequential and progressive developmental process based on exercising the requirements for leadership at the various levels.

Initial data for the project were collected through structured interviews with nearly 70 three- and four-star general officers and SES members. (See Appendix C.) A limited content analysis defined broad categories of performance that are required at the Army's executive level, and also confirmed the general utility of the Jaques (1976) models for describing and analyzing organizational functions and leadership requirements. These findings have been reported in several publications, including:

1. Senior Leadership: Performance Requirements at the Executive Level, Jaques, Clement, Rigby, and Jacobs, ARI Research Report 1420, 1985.

2. Executive Leadership, U.S. Department of the Army, Pamphlet 600-80. 1987

3. Special Text: Executive Leadership, prepared for leadership instruction at the Army War College, 1987

A detailed analysis of the interview data was then conducted to describe the Army's executive positions in terms of organizational function, the specific knowledge and skills reported as requisite to accomplishing the work at the executive level, and the developmental events and processes that had been instrumental in the careers of current Army leadership. This analysis extends the scope of the initial analysis of the three- and four-star general officer interviews and assignments, and provides quantification (by frequency count of mention) of the categories that emerged from the content analysis.

Executive-Level Leadership Requirements

The scientific study of leadership at senior levels dates back less than 25 years. Prior to that time, leadership theory and research were devoted largely to the processes involved in face-to-face influence practiced at lower organizational levels. Studies on "leaders" and the subset of role responsibilities called "leadership" seldom were designed in the context of the myriad of other factors involved in individual and organizational performance. As noted by Hosking and Morley (1988), the separation of leadership phenomena from the organizational processes of which they are a part led to a lack of attention to the political quality of leadership, that is, to the much more complex interlocking of cognitive, social, and political processes that are in fact involved.

Although management theorists have provided insight into executive functions for many years (e.g., Barnard, 1938), the approaches were generally anecdotal and descriptive, producing only limited cross-study empirical data for theory building. Mintzberg (1973) was among the first to address this need. In a study focused on more senior levels, he systematically collected data on the broader role of the position incumbent in terms of the role that position serves in the organization. The past two decades have seen a rapid growth of this type of systematic empirical exploration of executive functions. Much of this work has been framed in the context of over-arching organizational theories, frequently involving hierarchical models that compare executive-level functions and processes to those at lower organizational levels.

Katz and Kahn (1966) and Simon (1977) are early representatives of this approach. They described organizations -- in this description, the machine bureaucracy -- as consisting of three broad bands, with broadly differing organizational functions and performance requirements. The first level is seen as devoted to basic production processes; the second, to organizational (operating) functions, and the third, to executive functions. Simon uses the analogy of a three-layered cake to describe the differentiation:

> In the bottom layer we have the basic work processes -- in a manufacturing organization, the processes that procure raw materials, manufacture the physical product, warehouse it, and ship it. In the middle layer we have the programmed decision-making processes -- the processes that govern the day-to-day operation of the manufacturing and distribution system. In the top layer we have the non-programmed decision-making processes, the processes that are required to design and redesign the entire system, to provide it with its basic goals and objectives, and to monitor its performance. (p. 110)

The major elements that differentiate the work in each broad level are often described in terms of the degree of decision discretion and the complexity of decisions that must be made. The factors involved in conceptual complexity are seen to include the number of causal, moderating, or intervening factors, the certainty with which they and their effects can be known, their rate of change over time, and the time intervals involved in cause-and-effect chains (Thompson, 1967; Daft and Lengel, 1986). Performance at each level, then, is tied to a position incumbent's ability to understand and account for these increasingly complex cause-and-effect relationships in the decision process.

At the executive level, each of the elements that contribute to complexity has been found to be significantly greater than at lower levels. There are more causal and intervening factors to be considered, with far greater degrees of uncertainty as to their effects and interactions. The rates of change and time intervals involved in cause-and-effect chains are significantly longer than for the decisions at subordinate levels. Many of the decisions regarding such long-term issues as financing or new-development initiatives do not even exist at lower echelons. At the highest levels, where complexity is greatest, an executive's role is often to introduce order into the complexity so that some feasible action can emerge, rather than selecting a preferred solution through trade-off analysis (Anderson, 1983).

Thus, one of the requirements for executive performance is to possess the frames of reference or "mental models" that contain decision elements in a correct model of cause and effect. Those who move into senior positions without either the required mental model or the ability to build it will likely make faulty decisions. The implication for executive development is the importance of constructing such a conceptual frame of reference during the career years leading to executive positions.

In addition to being more complex, executive decisions have been found to be qualitatively different from those at lower levels, and thus require a different mix of skills (Katz and Kahn, 1966). At the lowest organization level, the focus is on concrete tasks that require technical knowledge and interpersonal skills for face-to-face contact and motivation. At the middle level, decisions focus more on indirect facilitation of task accomplishment at lower levels through scheduling, planning and resourcing. Conceptual ability becomes more important, especially analytic processes and skills. Streufert and Swezey (1986) use the term "multidimensional differentiation" to describe the cognitive skill complexity needed for these mid-level decisions.

Executive decisions are related to giving a sense of understanding and purpose to the organization. This sense of understanding requires clarity of perception of the cause-and-effect relationships in the organization's internal and external environments. As described by Simon (1977):

> Executives and their staffs spend a large fraction of their time surveying the economic, technical, political, and social environment to identify new conditions that call for new actions. They probably spend an even larger fraction of their time, individually or with

> their associates, seeking to invent, design, and develop possible sources of action for handling situations where a decision is needed. They spend a small fraction of their time in choosing among alternative actions already developed to meet an identified problem and already analyzed in terms of their consequences. They spend a moderate potion of their time assessing the outcomes of past actions as part of a repeating cycle that leads again to new decisions. (p. 40)

In essence, executives must look "outside" their organization, while the functions at lower levels require incumbents to look "inside" (Daft and Weick, 1983).

Unlike at lower levels, decision options may be harder to generate because of incomplete or inaccurate information or the anticipated impacts of undesirable second-order effects of available decisions. Complex decision making appears to be more a fabrication of "workable" solutions to problem situations with uncertain outcomes, than a selection from developed alternatives. The approach is to develop a course of action that preserves as many options as possible, and then to manage toward an outcome by solving smaller problems along the way (Anderson, 1983).

In addition to the abstract analytic skills required at middle levels, abstract integrative skills are seen as necessary for executive-level thinking. Analytic skills are needed to separate out the elements of a situation, while synthesis skills are essential for seeing or creating patterns. Streufert and Swezey (1986) identified individuals with these skills as "multidimensional integrators."

In summary, current research efforts into executive-level functions and skills seem to indicate clearly that a key factor is the degree of complexity and multi-dimensional cause-and-effect relationships that must be understood and accounted for in decisions. Further, skill requirements change in concert with changes in the nature of work at each level, with conceptual skills, including accurate mental modeling of cause-and-effect relationships, becoming relatively more important.

Studies that have explored other facets of executive-level decision-making and leadership confirm and amplify these findings. Blair and Hunt (1985) identified four key domains as vital to the future study of senior leadership: a system-wide perspective, a need to examine fundamental assumptions, a concern for organizational design, and a robust focus on cognitive functioning.

Isenberg (1985) described executive-level thinking as generally intuitive and non-linear. Rather than classical decision-making techniques such as trade-off analysis between alternatives, the Chief Executive Officers (CEOs) in his study were described as creating new alternatives, keeping options open, delaying decision points, searching for more information, and driving to include more people in the decision function. They did not use analytic tools, but relied on "intuition" or "gut feeling." Rather than solving problems, they focused on defining them so they would be amenable to solution.

These strategies appear to be highly appropriate for top-level executives who are dealing with the outer limits of the complexity factors described earlier. Their "intuition" likely could be described in more precise terms as the synthesis or multidimensional integration referred to by Streufert and Swezey (1986).

In a model for managing strategic change, Tichy (1983) defined a technical system, a political system, and a cultural system inside the organization, and a five-year time horizon for strategic planning. Tichy and Devanna (1986) later reported findings from a sample of CEOs of large-scale multinational companies. Instead of the five-year horizon and the focus on inside factors assumed by the model, the results actually reflected a longer time horizon and a focus on factors outside the organization. It appears that these factors are sufficiently characteristic of executives that they will emerge as findings even when models do not predict them.

Performance requirements in this particular executive sample included (a) recognizing long-term change that poses challenge to the enterprise, (b) challenging accepted assumptions about what is working and what is not, (c) focusing on the external environment systematically through information networks of various types, (d) working with others to develop a vision of feasible futures toward which effort can be mobilized, and (e) understanding the organizational and political mechanisms which must be invoked to implement change.

Bennis and Nanus (1985) reported similar findings from a large sample of corporate leaders. While there were a number of differences, a striking similarity was a concept of the desired future state of the organization, labeled "vision." Like Tichy and Devanna's (1986) sample above, the CEOs reported achieving shared commitment to this vision through persuasive communications.

In reviewing the work to date on executive-level requirements, it appears that the findings are consistent across research approaches and different types of organizational settings. The broad skill areas that have been defined above seem to be characteristic requirements of leadership at the executive level, made so by the common characteristics of the large-scale organizations they guide. This finding is consistent with reports from the work of the systems scientists who find universal characteristics in systems, irrespective of location or specific components. Convergent findings in the executive leadership area can be seen as a reflection of common characteristics of large-scale systems, expressed as performance requirements of their top executives.

Jaques (1976) developed his theory over 35 years of systematic observations in large, multi-national organizations. ARI has continued the research, applying the models in settings such as the Army Materiel Command's Program Management Offices (Rigby and Harris, 1986), and expanding the concepts into a theoretical model relating cognitive complexity and organizational echelon (Jacobs and Jaques, 1987).

STRATUM	TIME SPAN	GENERAL TASK REQUIREMENTS	TOE GRADE	DOMAIN
VII	20+ YRS	CREATES COMPLEX SYSTEMS ORGANIZES ACQUISITION OF MAJOR RESOURCES; CREATES POLICY	GENERAL	SYSTEMS/ STRATEGIC
VI	10+ YRS	OVERSEES OPERATION OF SUBORDINATE SYSTEMS; APPLIES POLICY	LT GEN	
V	5+ YRS	DIRECT OPERATION OF COMPLEX SYSTEMS	MAJ GEN	GENERAL COMMAND
IV	2+ YRS	TAILOR RESOURCE ALLOCATIONS TO INTERDEPENDENT SUBORDINATE PROGRAMS OR UNITS	BRIG GEN/COL	
III	1+ YRS	DEVELOP AND EXECUTE PLANS TO IMPLEMENT POLICY/ASSIGNED MISSIONS	LT COL	DIRECT COMMAND
II	3+ MONTHS	DIRECT PERFORMANCE OF WORK; ANTICIPATE/SOLVE REAL TIME PROBLEMS	CPT, LT	
I	LESS THAN 3 MONTHS	HANDS-ON WORK PERFORMANCE USE PRACTICAL JUDGMENT TO SOLVE ONGOING PROBLEMS	NCO/SM	

Figure 1. General performance requirements by organizational level.

In line with Katz and Kahn (1966) and Simon (1977), the theory describes three broad bands or "domains" of organizational function and human performance requirements. However, Jaques had taken the approach an important step forward by dividing the broad groupings into discrete levels, based on the unique tasks that are seen as critical to effective and efficient operations. Figure 1 shows a notional model of the theory's seven strata applied to the uniformed Army.

The complexity factors that are seen to distinguish the work at each level are consistent with those described by Thompson (1967) and Daft and Lengel (1986). The dimensions of the cause-and-effect chains that must be accounted for at each level are key factors in data analysis. Jaques also sees a direct relationship between the cognitive capacity required at each organizational level and "modes" of human capability and development. He has developed a standard set of "growth" curves to describe a regular and predictable pattern in attaining the cognitive complexity required at each level. Stamp's (1988) work on measuring this type of cognitive growth incorporates these standardized curves, and provides a promising method for assessing individual potential.

Another set of models is used to describe the mission of the organization in terms of the functions and products of the "operational spine." Other units are seen as providing various types of support to the operational spine and the decision makers at higher levels. The "organization domain" that directs and facilitates the work of the "production domain" is thought to top out at the level of a Strategic Business Unit (SBU). The corresponding Army element is a division. The "executive domain" is seen to extend above the SBUs, with responsibility for multiple systems and the functions that set the direction, secure the resources, and position the organization in the larger environment.

As noted earlier, one of the goals of the project was to determine the theory's utility for Army application. Based on the theory, Army executives, like their counterparts in a large, multi-national corporation headquarters, would be in positions that required the ability to: (a) control a number of systems; (b) deal with broad issues of resourcing, political climate, and multinational interests; (c) develop strategies for dealing with uncertainty and complexity; and (d) build consensus among peers to create a more favorable external environment for the systems under the purview of their executive position.

The overall research objectives were to describe the work and the skills required of Army executives, and to compare them to the theoretical models that framed the work. Specifically, the objectives were two-fold. The first objective was to describe:

1. The organizations led by three- and four-star general officers, and the position functions prescribed by law and regulation.

2. The relationships between these organizations.

3. The reported work of three- and four-star general officers.

4. The skills and knowledge reported as required to accomplish the requisite work at these levels.

5. The development processes involved in acquiring these skills.

Based on these descriptions, the next objective was to compare:

1. The present three- and four-star functional requirements and reporting relationships to the theoretical model.

2. The work reported in three- and four-star positions to the work hypothesized to be requisite at each of those levels.

3. Reported developmental activities to the theoretical model of organizational requirements and cognitive development.

METHOD

Subjects and Instruments

At the time the interviews were conducted, the Army was allotted a maximum of 60 three- and four-star billets, with the number at each level fluctuating with the rotations and selection processes for Joint positions. In this allotment, there would not be more than 15 four-star generals in the Army at a single point in time, but there could be as few as nine. The number of three-star billets varied accordingly in order for the total to equal 60.

During the period of the interviews, 13 four-star and 47 three-star positions had Army incumbents. Eight four-star generals (61.5%) and 33 lieutenant generals (70.2%) were interviewed. The 41 total interviews constituted 68.3% of the 60 assignments in the total three- and four-star population.

An interview protocol was designed to gather data on a range of factors seen to be involved in executive performance and development. (See Appendix C.) Two types of data were collected. The first was related to the specific requirements of the incumbent's current position, and was framed to gather information on the factors postulated by the model as involved in level-specific differences, in both organizational requirements and cognitive capability. They included (a) principal duties and functions, (b) time span of tasks, (c) organizational structure and resourcing, (d) key relationships, (e) successful and unsuccessful outcomes, and (f) impact of and on national objectives.

The second category of questions was focused on the incumbent's perceptions of the factors and issues involved in successful executive-level performance in general. While the initial question was framed as a query regarding the long-term development of the Army's future leaders, the response often included perceptions of the larger issues facing the Army, and descriptions and anecdotes about the incumbent's own career path and developmental events.

Data Collection and Analysis

In the initial planning, it was believed that the interviews would take approximately two hours. The actual durations ranged from one to over nine hours. In the initial data-gathering, interviews were tape-recorded in entirety, and transcribed verbatim. To protect anonymity, identification numbers were assigned to each individual record, and references to personal names were removed. During the detailed analysis, the transcripts were reconstructed to conform to the protocol sequence of questions. Responses were analyzed for appropriate placement in one of 72 response categories (Appendix A), and the responses were sorted by category. Samples of interview responses are provided in Appendix B.

For the detailed analysis, the data from the interviews were augmented by an extensive review of the statutes, regulations, and operational documents that define the position requirements of all of the Army's three- and four-star billets for both peacetime and war fighting. This review was seen as critical in light of the complex and evolving relationships involved in the Army's position within the larger structure of the Department of Defense (DoD).

Secondly, the perceptions and anecdotes regarding career paths and development activities gathered through the interviews were augmented by a review and analysis of the career records for the full complement of three- and four-star incumbents in place at the time of the interviews.

The in-depth analysis of the three- and four-star performance requirements was planned as a three-step process. First, organizational mission and position requirements were defined through document review. The positions were then analyzed in relationship to the mission, and to the functions defined by the SST model as necessary to mission accomplishment. The results of this analysis, together with the concepts of level-specific requirements from the theory, provided the framework for the hypotheses to be tested in the content analysis of interview responses.

The second step was the content analysis of interview responses, using the variable categories shown in Figure 2. In addition to an analysis of the categorical responses defined by the protocol, this step included another review of the original tapes and transcripts. Personal anecdotes and casual comments that had been omitted were added to the database and searched for examples of frames of reference and decision making processes.

Finally, developmental activities identified through content analysis of the interview responses and review of career records for the three- and four-star incumbents were compared to the model and to theories of cognitive development. In the content analysis phase, hypotheses were formed to test the interview responses against theoretical predictions in terms of:

1. the nature of the position (assignments, reporting relationships, decision time frame)

2. reported requisite skills

3. developmental patterns and activities

The central hypothesis was that both three- and four-star positions would fit the criteria for the executive domain in terms of nature of work and complexity factors (e.g., more than one system to control, multinational focus, emphasis on consensus building, etc.). At the same time, identifiable differences were expected between the two levels in the factors that were seen to contribute to complexity (Jaques, et al., 1985). For example,

three-star positions were predicted to have shorter time frames for decisions and more of an "inside" focus than positions at the four-star level.

Further, based on preliminary findings, it became clear that the theoretical models would need to be expanded and adapted to account for and describe the added complexity inherent in the Army's position in the larger DoD structure. In this situation, the Army's executive domain seemed likely to include position-specific differences within levels, depending on whether the position had Army-only or Joint/Allied responsibilities. This type of detailed understanding was seen as necessary to structure a systematic development program for the Army leaders who would fill these positions in the future.

Results of the content analysis of the interview data were aggregated, using both percentage of responses and individual examples of critical incidents. Percentage of responses were compared across categories, and summary tables were prepared to facilitate further analysis and discussion.

ID NUMBER: _____

CATEGORY: (4-STAR GO, 3-STAR GO, OR SES)

Variable	Critical Incidents
Time horizon for longest tasks	(International, Combined, Joint/Unified, MACOM, or other examples
Reporting relationships	(Level of direct superior)
"Real boss"	(Identity of next highest level of value added)
Peer relationships	(Reported same-level interactions)
Span of control	(Level and number of subordinates directly reporting)
Collegiality	(Reported degree and levels of collegial actions)
Level of uncertainty	(Indicators of decisions made with less than complete information)
Cognitive ability, conceptual skills, and decision processes	(Examples of abstract vs. linear/analytic vs. inductive/holistic)
Other	(Situation-specific examples of nature of work not covered above)

Figure 2. Individual record analysis form.

RESULTS

The results of the analysis are presented in three sections. First is a description of the nature of the work at three and four-star levels, and its relationship to organizational mission in terms of assignments, reporting channels, and time span of work. The second section identifies requisite knowledge and skills for senior leadership roles, as determined by content analysis of interview responses. Finally, developmental patterns of three- and four-star general officers are summarized, including an analysis of both interview responses and career records.

Nature of Work at Three- and Four-Star Levels

For the purposes of this research, the mission of the Army was defined in statute and regulations as a civilian-led provisioning force with Joint war fighting responsibilities. By this definition, the Army, and the other Services fulfill their missions by provisioning the unified and specified commands with trained troops and materiel for war fighting. Based on this mission and its implications for integrated planning and actions, it was hypothesized that Army executives would be in positions that crossed Service lines and involved complex reporting relationships.

Positions and Reporting Channels. The assignments billeted for three- and four-star general officers at the time of the interviews were available from the Office of the Deputy Chief of Staff for Personnel (ODCSPER). These positions and their reporting requirements were examined for the total population, then compared to the reporting channels noted in the interview responses.

Table 1 shows the positions and official reporting channels of the Army's 13 four-star positions at the time of the interviews. As shown, only five of the positions officially reported to more than one office. However, it was apparent from the interview responses that the actual situation was more complex. For example, even though the Secretary of Defense (SECDEF) is shown as the single reporting channel for unified commanders, two respondents in the position actually perceived a "dual" reporting channel to both the SECDEF and the Chairman of the Joint Chiefs of Staff who was reported as "real boss" and "day-to-day boss." In addition to formal reporting channels, all of the officers in Joint/Alliance positions reported maintaining informal reporting relationships with the Chief of Staff of the Army (CSA) and other senior Army leaders.

After considering both official and stated reporting channels, only the three assignments with single reporting responsibilities to the CSA (Vice Chief of Staff; Commander, TRADOC; Commander, AMC) were classified as single-reporting positions. Thus, the demands of multiple reporting relationships were found to be an added source of complexity for 10 of the 13 four-star positions.

Table 1
U.S. Army Four-Star Billets Represented in the ARI Subject Sample

POSITION	REPORTING TO:
Chairman, Organization of the Joint Chiefs of Staff	Secretary of Defense
Chief of Staff, United States Army	Secretary of the Army
Commander-in-Chief, United States Southern Command Commander-in-Chief, United States Central Command Commander-in-Chief, United States Readiness Command	Secretary of Defense through Chairman, JCS
Supreme Allied Commander Europe and Commander-in-Chief, United States European Command	Secretary of Defense through Chairman, JCS and the NATO Military Committee
United Staes Military Representative, NATO Military Committee	Secretary of Defense through Chairman, JCS
Commander-in-Chief, United States Army Europe and Seventh Army; Commander, Central Army Group Commanding General, Forces Command *	Unified Commander-in-Chief and Chief of Staff, Army
Commander-in-Chief, UN Command; Commander, Combined Forces Command; Commander, U. S. Forces, Korea; Commanding General, Eighth Army	Unified Commander-in-Chief; Republic of Korea-United States Military Committee; Secretary of Defense through Chairman, JCS; Chief of Staff, Army
Vice Chief of Staff, United States Army Commanding General, United States Army Training and Doctrine Command Commanding General, United States Army Material Command	Chief of Staff, United States Army

*Redesignated as Commander-in-Chief United States Forces Command (1987), a Unified Command reporting to the Secretary of Defense through the Chairman, JCS

It should be noted that legislative changes since the time of the field interviews have modified this command structure. Since these changes primarily were intended to increase Joint integration, it seems safe to assume that today's multiple reporting requirements equal or surpass those in place at the time.

The 47 three-star assignments at the time of the interviews are shown in Figure 3. Three of these positions had the dual-reporting channels required of the heads of service components of unified commands. Reporting channels for the other assignments were officially listed as single. However, since each of the respondents in Joint or Alliance positions also reported informal reporting relationships with senior Army leadership, the 21 non-Army assignments (44.7%) were classified as dual-reporting for this analysis.

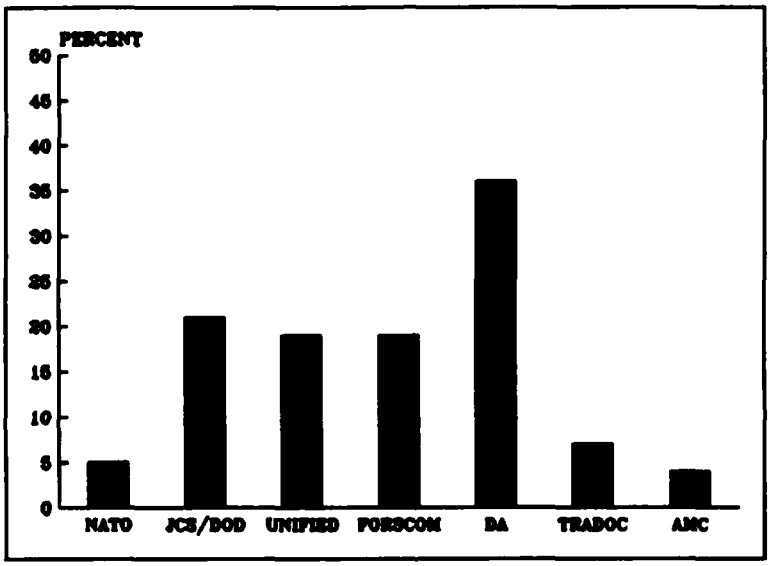


Figure 3. Three-star positions at the time of interviews.

After the positions in the Army's executive domain were identified, they were examined in relation to DoD's unified command structure. Three- and four-star positions in the Joint/Unified or Alliance structure at the time of the interviews are shown in Figure 4. Again, while this structure has subsequently changed, the figure is instructive in terms of the general placement of Army executives and the number of positions that are outside of the Army-only reporting chains that are common at lower levels.

As shown in Figure 4, command relationships for Army component commanders are at least dual, one through the JCS unified commander and another to the Army Chief of Staff. Two of these commanders also have an alliance command structure (USAREUR and US Forces, Korea). An added source of complexity in these assignments is the need for an understanding of the international political, economic, and military functions of these allied countries.

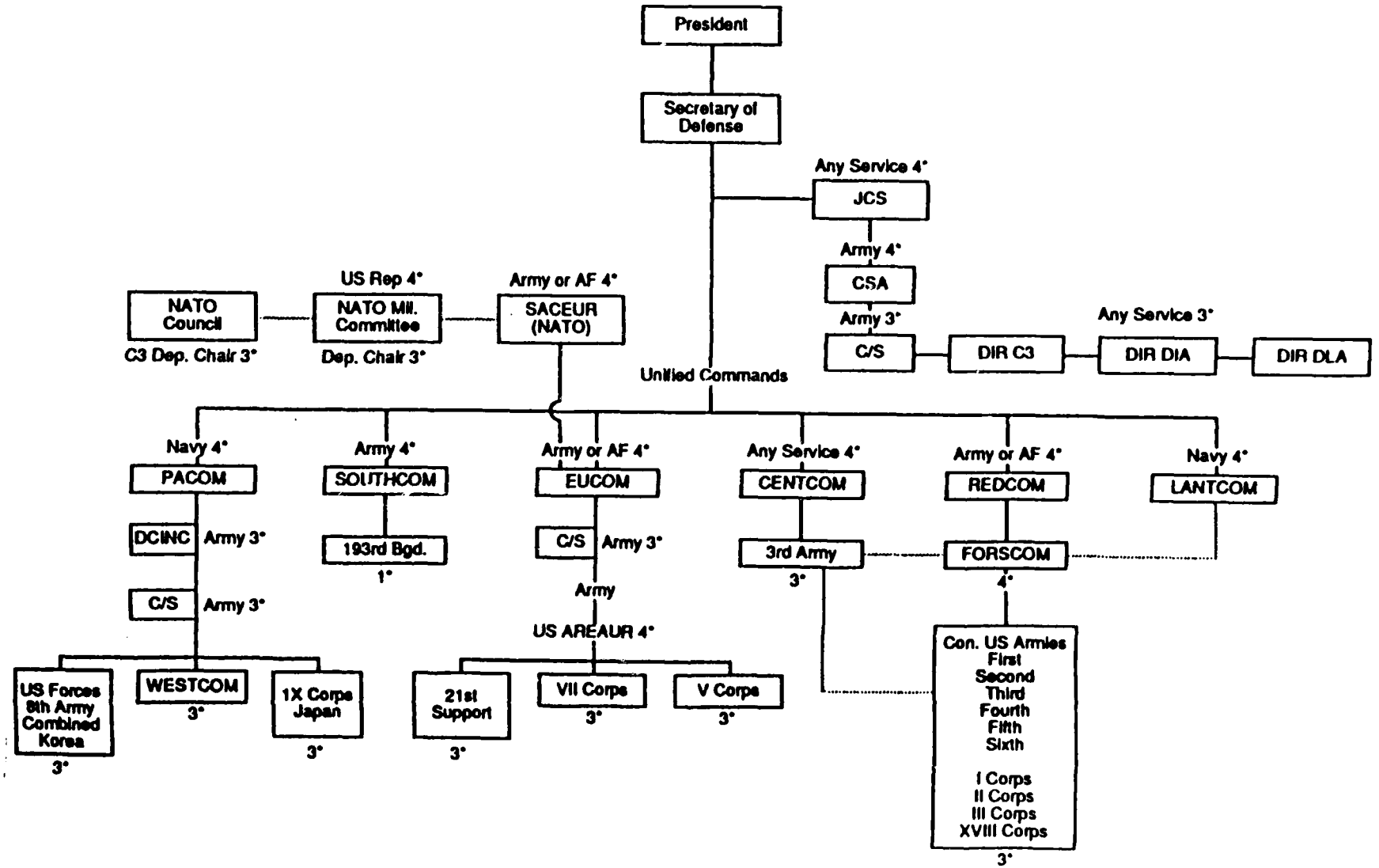
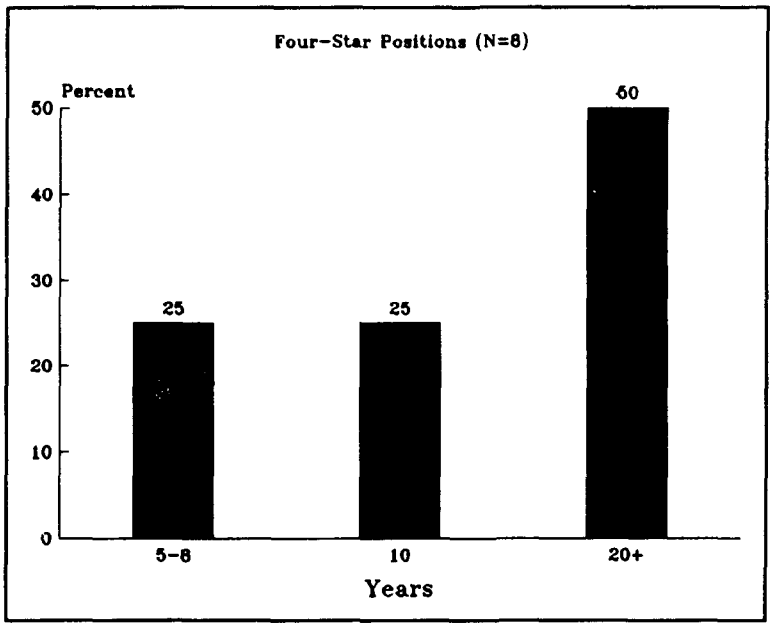


Figure 4. Three- and four-star position in the DoD structure.



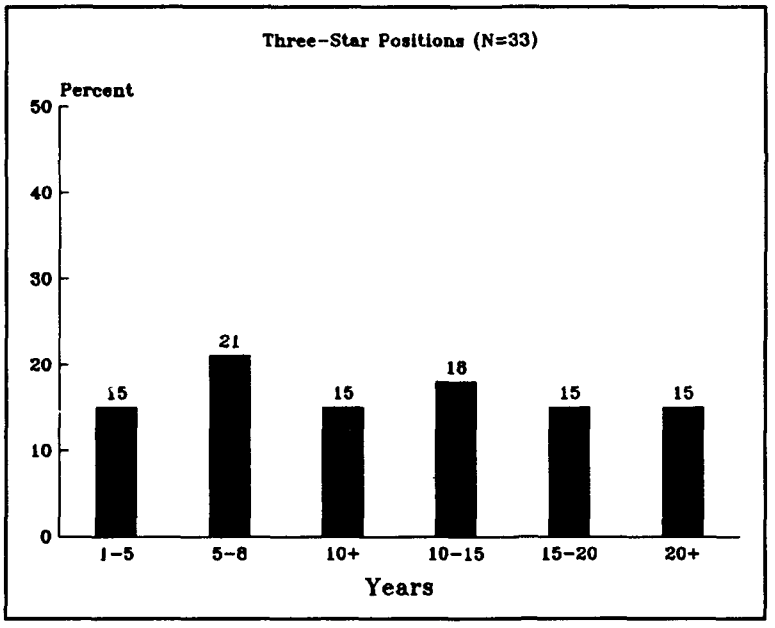


Figure 5. Time span of work for three- and four-star general officers.

Time Span of Work. Based on the theoretical model, the Army's executive functions and positions were expected to be dealing in much longer time frames than at lower levels, from 10 to 20 years and beyond. Another hypothesis was that there would be discernible differences between three- and four-star functions in the time span of the cause-and-effect chains that had to be considered and accounted for by incumbents.

Respondents were asked to identify the longest-term project in their current purview, and then to describe the other kinds of decisions that were functions of their position, particularly those that would extend past their own tenure. The time-spans reported for the four-star positions are shown in the top panel of Figure 5. As can be seen, four of the eight four-star generals reported tasks that extend out past 20 years. Two reported 10 years as their operating horizon, and two reported five to eight years, the normal span of the POM cycle. In all cases, the work was reported as dealing with the uncertainty of future events, funding, and political changes. Also in all cases, goals extended beyond their own tenure.

As was expected, a broad range of time spans was reported in the three-star positions, as shown in the bottom panel of Figure 5. The operational year was the focus of those in assignments such as chiefs of staff. Those in advisory or committee assignments also had short-term focus. The five- to eight-year POM cycle showed the greatest single percentage of respondents (21.9%). However, 65.4% reported working in the combined ranges of from 10 to over 20 years. Respondents in troop command assignments noted a strong polarity in their work. While long-term planning and visioning were required in one facet of their jobs, short-term operational concerns often took precedence.

Based on complexity factors including time frames for decisions, multiple reporting, and external focus, the majority of three- and four-star assignments were found to fit the criteria for executive domain as defined by the theory. However, the reported decision time frames were somewhat shorter than had been expected. The average reported time of slightly more than 15 years was consistent with another source of data, the Army's Professional Development of Officers Study (PDOS), also conducted in 1985. It seems likely that these findings reflect, at least to an extent, the strong influence of the budget cycle on the thinking processes involved in planning and resource decisions. It also seems likely that while many decisions were reported as framed in terms of the five-year budgeting cycle, the chains of cause-and-effect impacts of many of these decisions actually extended far beyond this time frame.

Requisite Knowledge and Skills

As noted in the introductory review of research on executive functions, the focus of strategic leadership has repeatedly been found to be on the external environment. Thus, it was hypothesized that the knowledge and skills found in the present research would reflect the Joint/Alliance, international, strategic nature of the positions described in the previous section. The theory also predicted a strong focus on building consensus through collegial relationships to deal with complexity and uncertainty. A third expectation was for the kind of multidimensional abstract thinking skills required to deal with the complex cause-and-effect chains to produce a desired future state.

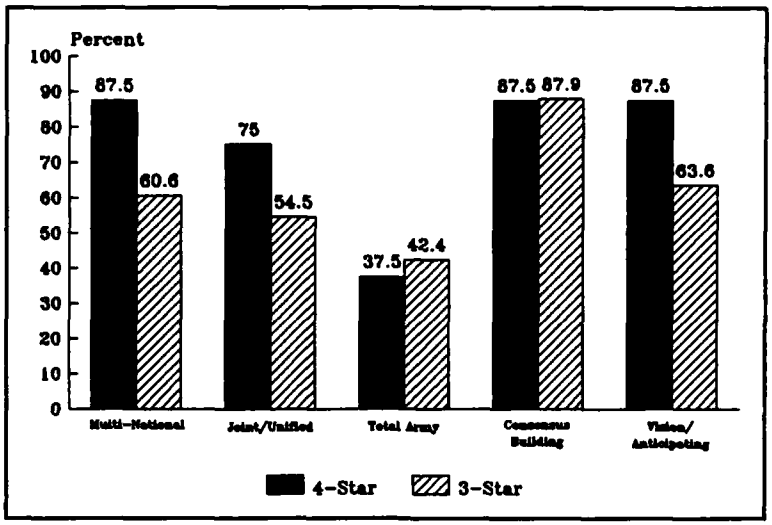


Figure 6. Knowledge and skills for three- and four-star positions.

All three of these hypotheses were generally supported. The most frequently reported knowledge components of a frame of reference for decision-making included multinational awareness, and the exigencies and realties of the Joint/Unified mission. Consensus building and anticipating/envisioning were the most frequently reported skills.

The theory also suggested that three- and four-star responses would have discernible differences in the extent of their strategic focus. While the responses were often similar in content, the frequency and emphasis of specific knowledge elements were found to vary. A comparison of three- and four-star responses in each content area is shown Figure 6.

As was noted earlier, the interview protocol included questions about both the respondents' current positions and the skills needed to do their job, and their views on the general requirements of executive- level leadership. During the content analysis, comments from both types of questions were coded together to develop the categories of knowledge and skills presented below.

In the following sections, individual verbatim responses are presented in each category of data. These quotes have been selected as typical of the statements in each area, and represent separate data points. No individual is quoted more than once in a specific area.

Multinational Knowledge. Of the eight four-stars in the interview sample, seven (87.5%) stated that work at the Army's executive level required an understanding of international culture, politics, and sensitivities. Four (50%) mentioned the value of knowing foreign languages. The following were typical individual comments:

1. I am working with many nationalities. A person coming into this position should have some prior international experience working with our allies. It would be advantageous if I spoke French; I am taking lessons.

2. We must develop an understanding of our own foreign policy and the policies of other countries in the minds of our officers. This development should begin at least by the one-star level, and no later than two-star.

3. Any three- or four-star general in a foreign assignment should speak the language of the country, even though you might conduct 99% of your business in English.

Of the 33 three-star interviews, 20 (60.6%) noted multinational knowledge as very important and nine (27.3%) mentioned the need for language skills. Responses included:

1. My successor should have served in Europe before. That is a total change for me. I came over here thinking that it didn't matter. I was wrong; it matters a great deal. It would help if I spoke German.

2. Even in a stateside billet, I am closely involved with host-nation agreements and trying to improve our ability to work with our allies. We are missing the boat by not doing more with our allies.

3. A Division commander is running inside the umbrella of a Corps, but a Corps commander's domain intersects with almost the whole world. He had better know what's out there.

4. You need prior experience in Europe for this job; it's the only way you will have an understanding of the international complexities. I wish I knew German, not so much to get the work done, but to understand the relationships and interactions.

A separate category of responses noted a need for understanding of and respect for cultural differences, a capacity that was seen as different from and additional to factual knowledge:

1. For those of us in international appointments, particularly with First World or Third World countries that we depend on for coalitions, you have to have rapport. Rapport can only come from a sense on their part that you really understand their country, you understand them, you believe in them, even though there might be disagreements on policy issues.

2. This is a multinational job and you must be totally sensitive to the feelings of other countries. They gave up part of their sovereignty by joining us in an alliance, and they are sensitive about that. They don't think like you and rightly so. Unless you are aware of and accept their culture and social fabric, you will have a much tougher job.

3. When you consider that over 40% of the Army is overseas in 70 different countries, it is sad to see the blind provincialism of officers trying to deal with old world cultures.

The higher incidence of four-star responses stating a need for multinational knowledge is consistent with a theory of increasing world view for top-most leaders. However, for Army executives at both the three- and four-star level, this knowledge area is one that should most likely be considered as position-dependent. While a case can be made that decisions made in any of the Army's executive-level positions would need to be considered in light of international factors and issues, some positions are directly responsible for international or allied organizations. In this case, they are not positioning the Army in the larger international environment. Instead, they are working to set the vision to position the international organization itself in its own environment. The depth of knowledge and experience required for these positions would clearly be much greater than that required for a general understanding of the Army in relationship to the international environment.

Joint/Unified Relationships. One of the earliest findings of the initial analysis of the interview responses was that the Army's Joint/Unified mission was a critical consideration for any detailed analysis of executive performance requirements. Every interview response included references to the impact of the Army's Joint war-fighting mission on executive performance.

Six of the seven four-star incumbents (75%) were in positions with direct Joint responsibility. Individual comments included:

1. This is a very complicated Unified Command structure . . . It is a very different situation from lower levels of command.

2. In this position, we are focusing on the Joint interface; we're working the seams. We have to get better at coordinating our resources for training and operations. We are trying to become the voice for interoperability.

3. I have never had any trouble dealing with command relationships or service rivalries. That's probably because I have been hanging around out here [in Joint assignments] with all these guys for a long time.

Fewer three-star responses noted the need for Joint/Unified knowledge, a finding that is consistent with the theory. However, more than half of the incumbents (54.5%) did report that need, phrased most often as a general need, rather than specific to their current position:

1. There will be more and more Joint actions. That's why it is important that officers, particularly Army officers, understand the nature of Joint work. We can no longer say, 'The Army is the only way to go.'

2. Everything we do should stem from national strategy, and that strategy is Joint.

3. You must have Joint experience, and an understanding that you don't do things unilaterally. The acquaintances I made in the Armed Forces Staff College are extremely valuable.

While the need for Joint/Unified knowledge and understanding was cited by nearly 60% of three- and four-star respondents, 23 of these officers (56.1%) also noted their perceptions that the Army's Joint mission was not adequately reflected in other facets of the organization. It should be noted that the interviews were conducted in 1984 and 1985, before the legislative changes that focused attention on Joint relationships. These comments would not necessarily be found today. However, they could be considered prescient of the changes that were soon to come. To the extent that is so, these officers were fulfilling the executive roles that were described in the introduction as recognizing changes that pose challenge to the enterprise, challenging accepted assumptions, and understanding the mechanisms for change. Typical comments included:

1. We fight in a unified command structure. That structure is Joint. We have not focused our own training on how the system is actually organized. As the base of land forces, I believe the Army has a responsibility to take the lead for Joint integration.

2. There is no understanding of unified commands versus the provisioning services . . . In our planning, we look only at Army commands, not unified; however, unified commands are the operational chain for war.

3. We must have an understanding of Joint relationships. We don't fight alone, yet we don't have a Joint effort at any level. We have to get a cohesion of programs.

4. I think we are going to have to revise our schools to reflect the Joint nature of much of our work.

5. In my field, we have to have inter-service operability of equipment, and that is almost impossible with our current materiel process.

6. Unified commands are a fact of life, but they are not understood by most Army officers. Even captains should understand that we fight under CINCs that may not be in green suits.

Requirements of the Total Army System. The hypothesis of an external focus at the executive level that was supported in the two previous response categories has a logical corollary of decreased concentration on internal processes. As shown in Figure 6, this was found to be the case, with only three four-star (37.5%) and 14 three-star (42.4%) responses mentioning the importance of understanding the complexity of systems that comprise the Army. Comments included:

1. Whoever invented the "tooth to tail" analogy should be hung. That gives the impression of the combat forces dragging a big dead piece of fat and that's not so. You have to understand the systems -- all of them. It does no good to know how to shoot if you don't have any bullets.

2. A general officer must understand there is something that needs to be done above the tactical level, such as the organizational supporting activities that allow the tactical people to function . . .

3. We are training "operators" who are experts at what they do, but know nothing about provisioning. We need managers of provisioning, just as the law says. They need more clout than the war fighters.

4. Over 70% of our colonels and 80% of the general officers are not commanding troops. They are in AMC, DLA, or the Pentagon working in the materiel, logistics, and provisioning kinds of businesses. We need senior officers who can run a $4 or $5 billion dollar a year industrial operation.

It is notable that both the four- and three-star respondents mentioned this need less frequently than those needs reflecting an external focus. In addition, this was the only category with more three-star than four-star respondents who mentioned the need, though the difference is clearly not significant because of the small number of four-star respondents. Even so, the pattern is consistent with an expectation that an external focus at the executive level would be even more pronounced for the top-most leaders. It also is consistent with the three- and four-star positions within the overall DoD structure and, again, a reflection of the Joint nature of the Army's mission.

Many of the responses in this category came from those in three-star positions who were directly involved in the internal processes of creating and developing the Army's "products" of trained troops and materiel. On the other hand, the majority of four-star positions either headed, or maintained the interfaces with, the external Joint or allied organizations that are the ultimate "users."

Consensus Building. The growing body of research into executive-level leadership cited in the introduction is documenting the importance of consensus-building in the work of CEOs in the private sector. The results of the content analysis also confirmed this finding for the Army's executive-level population. Building consensus to support goals and decisions was the skill mentioned most frequently by both three- and four-star respondents. The percentage of responses was almost identical between the two categories, with seven four-star respondents (87.5%) and 29 three-star respondents (87.8%) noting the need.

As would be expected, the lack of clear command lines in Joint positions was noted as a one reason for the need. However, even in Army-only positions, the definitive rank

structure that simplified command processes at lower levels was not found to be as useful. As three respondents noted:

1. With subordinates at the top levels, a number of things cannot get done by orders. You correct the rocket slowly, and you do so by persuasion and consensus building.

2. To be directive at this level is to be unsuccessful; you must deal collegially and through consensus.

3. At these levels, you are working with highly qualified, experienced people. You had better listen to what they say.

Respondents in Joint/Unified positions noted the specific requirements of working in the Joint environment. Typical responses included:

1. At this level, one's success can be measured by the degree to which you are able to deal with the amorphousness, the lack of definite subordination, and to exercise leadership through co-option and building support for a common mission.

2. In these positions, we are trying to convince someone that they should do something. It is all persuasion, selling, articulating; trying to build consensus for coordinated action.

A third category of responses involving consensus-building was related to attempts to influence the external environment. Respondents noted the requirement to interface effectively with political leaders, the media, and society's influential institutions. For respondents in international assignments, these relationships had to be maintained cross-culturally and in disparate settings:

1. This job has heavy political, congressional, and international awareness and contacts to be maintained. In addition, I must integrate horizontally across the Services, using every friend I have and every bit of persuasion I can muster.

2. We are implementing an expanded relations program with all of the countries in the region. It is done through persuasion and negotiating with civilian and military leaders.

3. I have been accused of being a diplomat in this job. You are dealing with royalty, with a number of other countries. You have both the military and the internal hierarchy, and you have to know what the power is in the country.

Respondents noted that building consensus through persuasion and influence was based on networks of professional and personal contacts. For some positions, the collegial Army network developed throughout a 30-year career was seen as sufficient. However, as

reported earlier, those in assignments with Joint requirements emphasized relationships with colleagues from other services that had been developed through Joint schooling or earlier assignments.

The most difficult networks to establish seemed to be external relationships. Depending on the assignment, these included Congressional committees, NATO allies, State Adjutant Generals for National Guard matters, or local officials in rural Germany. The one constant was that if these relationships were already in place through earlier assignments, work was immediately facilitated. If they were not, they took time to develop. Examples have been quoted earlier in responses that stressed prior qualifying assignments in Europe. Local knowledge and networks were reported as equal to tactical knowledge in importance, and only developed on site and with time.

While models of the types of skills involved in leadership often separate conceptual skills from those involved with interpersonal relationships, for this type of consensus building the two were found to be inseparably linked. The influence process itself was interrelated with the conceptual component of formulating the requirement in terms of options and possible cause-and effect consequences, in order to select the appropriate and most promising approach.

Envisioning/Anticipating. One of the key executive functions described in the literature is often called providing the "vision," and described as involving long-term goals for the organization and its relationship to a changing environment. Interview responses in this sample also noted these skills, phrased as being able to envision the future, to anticipate change, to establish goals in the face of uncertainty, and to shape the environment.

A higher percentage of four-star responses reported the importance of long-term envisioning (87.5% versus 63.6% for three-star responses). These figures are consistent with the theory and the reported time frames for decision-making reported earlier. However, the contents and contexts of the reported anticipating and positioning were similar across the two categories of respondents.

For four-star assignments, typical responses included:

1. The four-star guy, if he is doing what is expected of him, is taking as long a view as he can project. He should be trying to get enough sensing to be able to anticipate the future.

2. At this level, there is a great premium on anticipation. If I'm not drawing on my experience and intuitive understanding of the situation, I'm not functioning as a four-star. If I am anticipating right, I can shape the issues, rather than having the issues shape me.

3. I wanted to make a philosophical change in the command that would change our force mix. I developed a vision, a concept of where we should be, and then sold it to the senior leadership.

For three-star assignments, typical responses included:

1. We are trying to envision the requirements for leaders in 2020 . . .

2. You have to be able to understand what is making environmental changes before you can chart your own objectives and set your long-term goals. Everything is connected in inter-related systems.

3. All of the work at this level is in concepts and visions of what should be . . . Force structure and hardware for the year 2000 and beyond are being set right now and the strategic mix must be right. The decisions that we make in the 86-89 POM will come to fruition in 2020, 35 years from now.

4. I am setting the compass for at least the next seven years, establishing the values, setting the climate. We are projecting into the future, looking at international trends, anticipating questions, and formulating answers to questions that people don't even know they need yet.

5. We must set the focus with goals and values; if we don't shape the environment, it will shape us.

Other Requisite Skills

The content analysis generated five other categories of skills or capabilities one or more of which were found in over 40% of three- and four-star responses. These included the ability to deal in abstractions and concepts, establishing values/climate setting, self-evaluation as part of error-checking, sharing frame of reference with subordinates, and dealing with uncertainty/risk taking. Each of these categories is discussed below, with examples of individual responses.

Abstracts/Concepts/Synthesizing. While it was hypothesized that respondents would be dealing in abstractions and concepts, there was no expectation that they would be able to verbalize this requirement. The results of the content analysis were surprising in the number of respondents who actually stated that these cognitive skills were required. The need was seen as tied both to the absence of concrete, specific knowledge and the complexity of the issues that needed to be considered in terms of their cause-and-effect relationships. Respondents also reported the importance of "synthesis," often described in terms that were consistent with Streufert and Swezey's (1986) definition of multidimensional integration. The following responses were typical of those that noted these skills:

1. The role at this level should be devoted to broad concepts, abstracts, visions of what we should have as a military defense structure.

2. A synthesis is required to produce doctrine, a very different set of skills than managing weapons systems or commanding troops.

3. You must be able to visualize, to deal in concepts and abstracts. In my own mind, it often comes out as a cleverly designed graph.

4. At this level, the work gets done through concept formation and synthesizing.

5. Senior officers must understand the systems -- not just the combat units, but the support and Joint requirements. These are all complicated systems that have to be understood in their own right before you can synthesize them and deal with concepts for change.

Establishing Values/Climate Setting. Establishing and/or maintaining the organization's culture and values has been reported as a key executive function in the private sector. The incumbents in the Army's executive positions similarly noted the importance of these activities. This was one of the skill areas usually reported as a general requirement, rather than specific to the position.

Responses could be differentiated into two categories, one internal and the other more related to the values and culture tied to the Army's role in the defense establishment and the larger society. The importance of value-setting and representing the organization to the larger society was reflected in responses that noted the amount of time and resources committed to the general area of "public relations." Articulating the Army's values and mission to a wide variety of audiences was reported as a primary task. Methods of accomplishing this work included establishing special cells of information specialists.

The skills involved in this area were seen to include those involved in personal communication. The developmental experience consistently mentioned as the most valuable preparation for an executive-level position was related to this performance requirement. Incumbents referred frequently to the sessions on techniques for handling media interviews that are presented by the Army's Public Affairs Office (PAO). These video-taped sessions were often cited as the first time these officers had had the opportunity to see themselves in this type of communication situation.

Typical responses included:

1. We must have an appreciation of the political arena and the different audiences we address. In peacetime, we must talk in ways that allow people to understand who we are and that we are not looking for a fight.

2. At these levels, we have increased visibility as public images. If we get into trouble, it is because we are running organizations that are highly scrutinized by the public and the media. We must be very aware of the need to articulate the Army's mission.

3. I consider myself, first of all, a citizen, and secondly, a soldier. It is part of my responsibility to speak to my fellow citizens and to assure them that my concerns are the same as their own. We must strengthen those bonds.

Executive skills in value-setting were also described in terms of establishing internal values for the Total Army and individual commands. Respondents noted the importance of climate-setting through shared goals, the creation of a personal image, and attributes generally described as "caring for the soldier." Feedback methods to assess how well values had permeated an organization were unanimously reported as including personal visits and conversations with personnel in the lowest echelons. Typical responses in this category included:

1. You need an understanding that the nature of leadership is creating an environment for your organization. People have to share the goals, so you spend a lot of time thinking and talking about them.

2. Those of us in the military work hard at creating an image. Our bands and ceremonies are an important part of the climate and the culture. A general officer should use those events to create the image he wants his subordinates to have of him and of the organization.

3. As a general officer, you establish the philosophy and tell them to run with it. It's our job to set the climate, and that comes back to caring.

4. I can tell if my message has gotten down into the command after 15 minutes in a maintenance pool or in a troop unit. After all these years, you get a feel immediately for how things are going.

Self-Evaluation/Error-Checking. Another category of responses extended the organizational feedback mentioned above to personal error-checking and self-evaluation. The ability to do a critical self-evaluation was seen as especially important as officers move upward through the organization. As with the comments on abstract thinking, respondents exceeded the model's expectations in terms of verbalizing the process of evaluating and discarding old decision models and the importance of self-evaluation in a developmental process:

1. A general officer's perspective must change with assignments. He needs to be able to admit earlier mistakes. He can only do that if he is able to do a serious self-evaluation.

2. Self-evaluation is terribly important. We must be prepared along the way to do some thinking about our own capabilities, our own values, our ways of dealing with situations. Unless you do that, you don't change with changing responsibilities.

3. General officers should have a computer terminal that gives them a readout of critical tasks by level so they would understand what skills and baggage need to be left behind as they move from one level to the next.

4. Senior leaders must have critical, self-evaluation mechanisms to discard old problem-solving techniques.

While these types of statements usually began as a response to questions regarding the development of future Army executives, they often continued into references to personal experience or individual techniques for self-evaluation. In general, the meta-cognitive processes involved in this type of self-monitoring appeared to be almost uniformly present in the incumbents included in this survey.

Sharing Frame of Reference. Another hypothesis examined whether Army executives recognized a requirement for deliberately working to create the shared frame of reference that is seen as important to decentralized decision making. This area was also seen as related to mentoring and growing their replacements, an activity often reported in research in the private sector. Both three- and four-star respondents reported this as something they practiced routinely.

In terms of the command environment, respondents noted a span of two echelons above and below as a necessary band of mutual understanding. Sharing a frame of reference was also noted as related to self-evaluation and the development of a personal philosophical basis for decision making and leadership. Typical responses included:

1. I use briefings to let people get inside my head and find out how I think. I make them interactive so that the whole decision process is out in the open.

2. You must be able to articulate and understand the strategy and the intent of commanders two echelons above you, and make sure that your subordinates two echelons below understand yours.

3. I draw pictures on butcher paper to try to describe my thoughts for my staff.

4. I try to spend time talking with subordinates in a way that both brings them along for their own development, and makes them more useful to me.

5. A general officer must have a personal philosophical underpinning of what he believes before he can share his frame of reference with his subordinates.

Dealing with Uncertainty/Risk Taking. Another set of responses noted facets of leadership that appeared to involve an interaction of skill, cognitive ability, and personal values. This attribute was described in a number of ways, such as dealing with uncertainty, being willing to innovate or take risks, and allowing for mistakes. Over half (53.7%) of the three- and four-star responses contained references to this characteristic. The majority of the responses were related to questions regarding general executive performance requirements or development processes. They often included references to their own experiences, particularly in the area of risk-taking.

The ability to deal with uncertainty was often expressed as being able to adapt and act without all the facts:

1. Officers who succeed at three- and four-star levels have the individual capacity to cope with complexity, amorphousness, and uncertainty. They do not have to have everything laid out for them; they have the resiliency and ingenuity to adapt to new and different circumstances.

2. You have to intuitively know that a situation needs attention. You need the ability to make the right call, and make it without all the facts. We are usually dealing with uncertainty.

3. I look for an ability to organize a problem very rapidly, understanding that there are elements that they do not know but must decide without.

Responses that dealt with risk-taking seemed to reflect a general capacity to see what was "right" in a given situation, and the moral courage to act when others were indecisive.

1. I had a boss who told me that I must do something or he would write me up in my efficiency report. I said, 'Write it.' Officers are far too worried about efficiency reports, rather than doing what is important.

2. I broke every rule in the book . . . They threatened to fire me, but I didn't care. It was a chaotic situation, and I simply refused to wait any longer for my superiors to find a solution.

3. I have done what I knew was right. I have three Article 15s that read better than my nomination for a Silver Star. My record is terrible. I take great pride in that.

A corollary set of comments stressed the importance of "mistakes" in the development process:

1. Show me guys that don't make mistakes, and I'll show you guys that don't do anything. My definition of a useless senior commander is one who doesn't want to make waves and is more concerned about his career than what is good for the Army.

2. We must allow ourselves and our subordinates to make mistakes. I have made many mistakes in my career. I take pride in a less-than-perfect record.

3. I have found that the Colonel who does the best had bad OERs as a Lieutenant or Captain. In my mind, we have here a young officer who challenged the system and took a lot of chances. Then the 'play it safe' syndrome takes over and they start worrying about their careers.

Another category of responses identified a perceived lack of opportunity for today's young officers to learn from "mistakes" and a low survival value for the risk-taking that had been prominent in the respondents' own development. A "zero-defects" mindset was seen as particularly troubling:

1. We ask 'where is the warrior spirit?' I think the warriors are there, but zero-defects discourages risk-taking. A warrior needs to operate independently, yet in today's Army culture, independent action may cost him his career. This has serious implications for what we say we want for the decentralized decision-making of AirLand Battle.

2. We are coming close to a zero-defects value system. That will not serve us well, particularly if we say that we need innovation and decentralization.

3. I think I am more concerned about the zero-defect mentality than almost anything else. How will people ever grow and learn to be independent if they are so afraid of failure?

4. A centralized, conservative mindset combined with the rank structure of the Army fosters routinized, hierarchical behavior that undermines decentralized decision making. We believe that we can change to decentralized leadership in wartime. I am not sure we can; we are not preparing people to do that.

Development Processes

The final phase of the analysis focused on the developmental histories of the three- and four-star executives who were serving at the time of the survey. Content analysis of interview responses was supplemented by a review of individual records available from the General Officer Management Office (GOMO). Data on military education, academic education, and assignments were collected and compared across the three- and four-star respondents. Interview responses were also organized into these three categories for comparison by response group. As in the preceding sections, the examples presented as typical are individual data points, with no respondent quoted more than one time in any category.

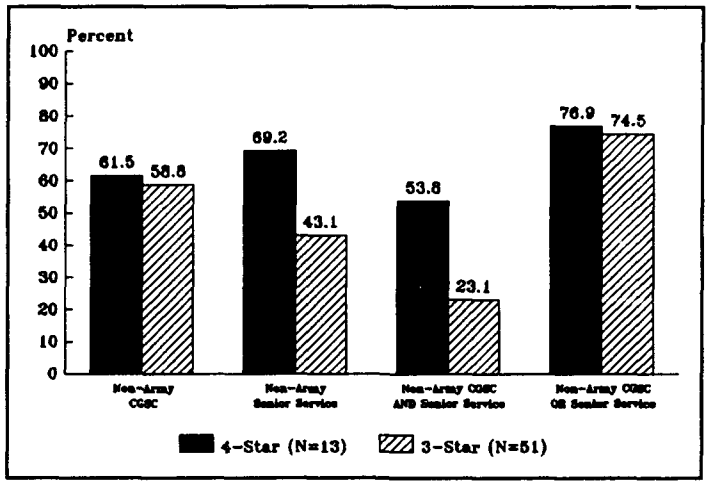


Figure 7. Military education patterns for three- and four-star incumbents at the time of interviews.

Military Education. An early finding of the initial analysis of the interview responses was the frequency with which incumbents noted the value of attending a non-Army school in terms of preparing them to work successfully in their current executive-level positions, especially at the four-star level. This finding led to the first review of career records for just those officers included in the interview sample. Seven of the eight four-stars (87.5%) and 22 of the 33 three-stars (68.8%) had attended a non-Army school at either the CGSC or Senior Service level.

When the analysis was extended to the total four-star population through review of GOMO records, incumbents in 10 of the 13 four-star positions (76.9%) had attended a non-Army school at one level or the other. Further, seven (53.8%) four-star incumbents had attended no Army schools, with their Army-specific training terminating at the advanced class. On the other hand, three of these officers (23.1%) had attended only Army schools, as shown in Figure 7.

Records were then reviewed for 51 officers who were either currently serving in or had just been named to three-star positions. The pattern was repeated, with 38 of the 51 (74.5%) attending a non-Army school at either staff or senior service level. However, unlike the four-star incumbents, more than half of whom had never attended an Army school, only seven three-star incumbents (21.9%) showed this pattern. The percentage attending only Army schools was similar to the four-star incumbents (21.9%).

When the two populations were considered together, 48 of the 64 three- and four-star incumbents (75.0%) had attended a non-Army school at some point in their career. Table 2 shows the breakdown of non-Army schools attended. As seen, the majority were those that make up the National Defense University (NDU). One four-star general had

attended both the Armed Forces Staff College and the Air Command College, and followed that a few years later with the program at the National War College.

While no longitudinal data were collected on other cohorts of Army executives, informal data from conversations with senior Army officers appeared to indicate that this finding was consistent with the perception that selection for NDU is an important career gate. Another data source (Mylander, 1974) provided an indication that this pattern was long-standing. This account of flag-level leadership reported that from 1969 to 1972, the large majority of flag positions in all services was filled by graduates of NDU schools. Further, as early as 1950, officers were reported as turning down appointments to their own Service schools in hope of selection for study within the NDU.

Of the incumbents included in the interview sample, only one of the 41 general officers interviewed specifically stated that Army officers should receive only Army schooling, particularly at the Senior Service School level. This response was framed in the context of the relationships that are the basis for collegiality and networking with Army peers.

The following were typical interview responses that noted the value of this type of exposure:

1. . . . The Advanced class is the last Army school I attended. I went to the Navy Command and Staff College and that really opened my eyes to the fact that there were a lot of good things going on out there. That is still my attitude. I have had over 17 years of Joint assignments of one kind or another.

2. I had the opportunity to go to the Air Command College. I learned a lot about the Joint world, and it also opened my horizons for my own personal development . . .

3. The National War College helped me understand the world system and the US's role in multi-national treaties. In addition, my current counterparts in the three other services were my classmates.

Civilian Education. All but one of the 13 four-star officers and 48 of the 51 three- star incumbents for whom data were available had at least a Master of Arts or Master of Science degree. Graduate degrees in disciplines such as public affairs, business administration, and engineering were noted in GOMO records. However, graduate work in international relations was the only educational preparation specifically mentioned in the interviews as valuable or necessary for the requisite work at three- and four-star levels.

Comments included:

1. Graduate level study in international relations is probably the only way to have the academic grounding to see the impact and importance of strategy and tactics on policy and vice versa. I hate to say that because I'm a soldier at heart.

Table 2. Non-Army Schools Attended by Three- and Four-Star General Officers

Command & General Staff College

	4-Star Officers (n = 8)	3-Star Officers (n = 21)
Armed Forces	6*	11
Air Command	1*	4
Marine	1	3
Navy	1	1
Other Country		2

Senior Service School

	4-Star Officers (n = 9)	3-Star Officers (n = 22)
National War College	7	9
ICAF	2	9
Naval War College		2
Air War College		2

* Dual attendance by one respondent.

2. I came out of a degree in international affairs with a totally different outlook. This was in my 11th year of service. I could then look at a world that was much broader than just the Army.

3. I was critical of what we received at the Army War College because I did not feel it was broad enough to prepare us for many of the jobs we were going to have. If we can't give our general officers what they need in international affairs in our own schools, then we should send them to civilian schools. They need to get it, one way or the other.

Of the 13 four-star officers, six (46.2%) had completed graduate work in international relations. Only ten (19.6%) of the 51 three-star records showed this preparation.

Assignments. As might be expected, the career records of both three- and four-star general officers included many examples of prior Joint/ Unified Command, Joint staff, or international assignments. Only one of the 13 Generals had no such experience listed after the rank of Colonel. The GOMO records for 51 three-star incumbents included 11 (21.6%) with no such assignments listed.

Reports of career decisions made deliberately to broaden experience bases were not unusual. As one respondent stated:

> My career choices were based not on what would get me a leg up on my contemporaries, but on what I was interested in. I asked for foreign assignments specifically to learn languages and different cultures. I have been able to develop a world-wide network of friends and colleagues, both inside and outside the military.

Tactical Command as Preparation. The role of tactical command was addressed by a majority (60.9%) of the incumbents included in the interview sample. The responses were made to questions regarding the requirements of their current positions, executive-level positions in general, and in the context of development programs for Army officers. Typical responses included:

1. Commanding troops is the bread and butter of our profession, but we must look for a different kind of guy for these kinds of positions. We must give him more expanded types of responsibilities.

2. In the kinds of coalition warfare we are committed to, it is not just a tactical military problem. It involves politics, economics, the whole social structure of these countries. We must understand it and we must be able to link our strategies to these issues.

3. I believe that raising people to be commanders is wrong. While officers should be tactically proficient, they can't be that narrow.

4. The skills required in this job are non-operational skills. A "hard-liner" command type would never be able to handle it.

5. A major shift by the top leaders in the Army must take place if we expect behavior to change in the development of leaders. The current combat operations orientation must change to a more strategic and long-range mission orientation if we are to win the next war.

6. By law, the services are provisioners and the unified commands fight. That means that the bulk of our senior officers are not in combat or even training to get there. They are making major policy decisions on the acquisition or spending of resources. That's what they should be trained to do.

These comments are consistent with the external, world-wide, strategic focus postulated by Stratified Systems Theory, and confirmed by similar research in industry. In essence, the changing nature of work as one rises from the operational to the executive realm in large, multi-national organizations appears to be consistent and predictable, irrespective of the particular organization under scrutiny. As one incumbent noted:

> It took me a while to realize that being involved in the totality of the military of this country meant that my interest was just about everything, everywhere, all the time. This awareness is absolutely crucial for every four-star officer.

The comment is strikingly similar to those made by the CEOs who have been the focus of a growing body of research on the unique functions and skills of the few who provide the leadership for the world's largest and most demanding organizations.

DISCUSSION

When planning for this project began in 1983, research results from a broad range of settings were producing evidence of a unique set of requirements and skills that seemed to characterize executive performance. While these findings were intriguing in their implication for a career-long executive development strategy, there was still a high degree of uncertainty as to their general applicability in all organizations. Further, there was as yet no systematic evidence of executive-level skill commonality in a military setting.

It seemed clear that a great deal of benefit could be gained from this study of Army executive-level leadership. If the results generalized to the military organization, they could well lead to a new plateau of understanding of executive-level performance. Executive functions and the skills required to perform them could be considered as a reflection of common characteristics of large-scale systems, and studied in that light. Additionally, the Army's efforts to structure a systematic development program could draw fully on the body of knowledge that was signalling the growing maturity of the study of executive leadership, irrespective of organizational milieu.

The theoretical model selected to frame the research (Jaques, 1976) was based on 35 years of observations in large, complex organizations. One of the compelling attributes of the model was that, although it had been developed through work in industry, the resulting seven-level hierarchy closely paralleled the rank structure of the Army's uniformed military. According to the theory, this hierarchy was the manifestation of the different types of unique tasks required at each organizational level, and reflected the direct relationship between the cognitive capacity required at that organizational level and a mode of human capability and development. It seemed well-suited to the investigation of a formal, rank-in-position organization such as the military, with accountability levels prescribed by law and regulation.

According to the constructs of this theory, the commonality of executive skills that was currently being documented in other settings was not only generalizable across organizations, but also was both predictable and requisite for effective performance. Further, since the unique tasks and skills at each level of the organization were similarly definable, they could provide a framework for a long-term development process, based on the dimensions of the cause-and effect chains that must be accounted for in decisions.

The findings detailed in the preceding section tend to support the model's hypotheses and, in so doing, add support to the mounting evidence that executive performance requirements are a reflection of the common characteristics of large-scale systems. Not surprisingly, the knowledge and skill areas hypothesized and confirmed in the analysis were found to be generally consistent with those found in industry and listed in the literature review in the introduction to this report. Like their counterparts in industry, the Army's executives were found to require primarily conceptual and interpersonal skills, and domain knowledge largely focused on the external environment.

The most important implication of this finding is that the theoretical model that framed the research and Stamp's (1988) elaborating work on measuring cognitive growth will provide an extremely valuable tool for structuring a systematic program of professional development for the Army's future leaders. The work to relate cognitive complexity and organizational echelon is already underway (Jacobs and Jaques, 1987).

At the same time that the research confirmed the utility of the model and the commonality of executive performance skills, it also focused attention on some of the unique performance requirements and developmental considerations that will need to be included in an executive development program. In essence, these requirements flow from two of the underlying characteristics of the U.S. military: its position in the larger defense structure and the career-long, internal development process that produces its leaders. Considerations in each of these areas are discussed separately.

Implications of the Army's Joint Mission

The Army's Joint mission has a number of implications for long-term leader development. Among the most critical are the type and level of the knowledge component required for performance and the role of developmental activities and assignments in acquiring that knowledge.

Knowledge Component for Performance. In the early stages of the analysis, the first response regarding the need for an understanding of the Army's Joint mission was initially coded as representing an "external" focus for the three-star incumbent. It shortly became clear that the incumbent was describing the critical performance requirement for the position, and that the position required an "internal" knowledge base of system requirements.

Further, while many incumbents described the developmental experiences that had prepared them to perform in their current position, others reported that they had come to the position with only limited or no prior preparation. In these cases, the incumbents related the difficulty they had experienced in understanding the requirements and in establishing the processes for consensus building.

As the list of three- and four-star positions with Joint responsibilities grew, and their performance requirements analyzed, it became increasingly evident that the theoretical models that framed the analysis were going to have to be expanded and modified to account for the additional complexity inherent in the data.

Until this application, the Stratified Systems Theory definition of the "operational spine" of an organization had been applied primarily in private sector organizations, at the "strategic business unit" level. However, the SST description of the processes involved in producing an organization's product proved to be extremely useful in analyzing the Army's role as a provisioning force for the unified and specified commands. In this

manner, each three- and four-star position was described in terms of its role in the overall DoD structure for both peacetime and war fighting. The performance requirements for each position could then be analyzed in terms of the type and degree of domain knowledge that would be required for successful performance.

At the time of the interviews, a number of incumbents spoke strongly of their perceptions that there was only limited understanding throughout the organization of the performance requirements inherent in the Army's Joint mission. It should be noted again that these interviews took place before the legislative changes that further emphasized the requirements of Joint operations. Many of the changes called for by the respondents have already been implemented, and the improved Joint processes and understanding that they saw as necessary are likely already in progress.

However, in planning for systematic leader development, it seems clear that leaders produced by the career-long process must have the knowledge and experience required to perform in the Joint DoD structure. An argument could be made that only those officers who will proceed upward into these highest-level Joint positions will need detailed and comprehensive knowledge. It seems unlikely that this would be a good argument, for two interrelated reasons. First, the knowledge domain and mental maps involved in successful performance may require early and frequent exposure to the Joint arena. The early identification of those who will ultimately fill these positions, followed by selective grooming, may be neither practically nor politically acceptable. Second, while only a few Army executives may actually need the comprehensive knowledge required for Joint decision making, their context of their decisions will need to be understood by those who will implement them. It thus seems that the most feasible approach may be to significantly increase the Joint knowledge base of all officers through career-long developmental activities.

Assignments and Development Activities. The second implication of the Army's Joint mission is the importance of assignments and development activities in acquiring the frames of reference necessary for successful performance at the executive level. In general, the incumbents in three- and four-star positions at the time of the interviews could be characterized as having had "non-traditional" career paths. For many, exposure to the Joint arena began very early. One incumbent reported over 20 years of experience in these assignments. Those with a career history of one or more prior Joint assignments cited these experiences as the most important development activity in terms of preparation for their current position.

Non-Army schools were identified as the other source of exposure to and understanding of the Joint arena. Even those in positions that did not involve allocating Joint resources or other types of direct Joint responsibilities noted the value of the non-Army school experience to working at the executive level.

In addition to the domain knowledge acquired through these activities, the benefits included the opportunity to build the circle of professional acquaintances and working

relationships that facilitated consensus building. As one respondent in a Joint position noted, his counterparts in two of the other Services had been classmates at NDU.

The issue, of course, is the process for the selection or assignment that produced the knowledge and understanding. It appeared that, for the incumbents included in the interview survey, both self-selection and identification by others were involved. In some cases, respondents noted being surprised at being selected for a Joint assignment or non-Army school, while others related seeking out the opportunity.

In all cases, for these officers at least, the first experience in a non-Army setting was noted as a critical event in terms of a heightened understanding of the Army's position in the larger environment. Responses that emphasized the increased awareness of wider opportunity were common. This raises issues surrounding the concept of growth curves for cognitive capacity. It seems evident that a number of other officers had the same experience at the same time in their careers, but viewed it entirely differently. In many cases, it would not have been experienced as a development activity, but as a detour.

Since the number of opportunities is severely limited compared to the number of officers progressing through the system, it appears inevitable that increasing attention will need to be paid to the selection and assignment processes that allocate these scarce developmental resources. In addition, if the ultimate goal of a systematic development process is to create a war reserve of highly-qualified leaders, innovate methods will have to be sought to provide some of the benefits associated with these experiences in other ways.

While the problems surrounding early identification mentioned above are and will continue to be present, the issues are significant enough to warrant a major assessment of the options and alternatives for the career-management factors involved in long-term executive leader development.

Implications of an Internal Development System

One of the basic goals of this research was to investigate the hypothesis of executive skill commonality across large-scale organizations. The results generally confirmed that the Army's executive performance requirements were consistent with those reported in other settings, reflecting the characteristics of large-scale organizations. However, there is one extremely critical difference in terms of the career-long processes and experiences that produce the skills. The Army's process, like each of the other U.S. military services, is entirely internal.

Unlike a corporation that can recruit a middle manager or a world-renowned chief executive to fill a current need, a U.S. military organization assumes total responsibility for developing its leaders through its internal processes of assignments and schooling. The incumbents to fill each of the Army's 60 three- and four-star positions must appear every

four years (or less), qualified to fulfill the extremely complex and demanding requirements of the positions.

A totally internal development system has many implications for a systematic program to produce the Army's future leaders. Although some of the issues involved in career management were discussed above, other considerations will be noted below, together with implications of short-term assignments, and models and approaches to executive development.

Centralized Career Management. As noted above, if the Army's internal development system is to provide the necessary executive leaders, attention will need to be focused on the centralized personnel management system. One issue is the qualifications and capabilities of those making career decisions for the officer corps. A tenet of the theoretical model that framed this research is that a manager at least one level higher should monitor the development of subordinates. In terms of Army rank, a personnel manager should be two ranks higher than the officers being managed. However, current policy often has officers of the same rank making career decisions regarding their peers.

Another issue is the number of people having input to the decision. Again, the model suggests that a superior's superior is not only the best qualified to evaluate a subordinate's performance, but has that responsibility as part of mentoring and organizational development. In structuring a systematic career development program, it would appear feasible to institutionalize the process of incorporating input from an officer's senior rater regarding assignments and schooling. If this should not be possible, it would still seem that each decision, especially those involving advanced schooling or Joint assignments, should be made with as many sources of input as possible.

Effects of Short-Term Assignments. Another implication of an internal development program is that each assignment is an integral part of the process. Yet, the policy has been one of short-term rotations through assignments. It may be that a systematic executive development program will need to include a revision of that policy, especially for those assignments that provide opportunity to develop the frames of reference necessary to understand long-term chains of cause-and-effect relationships.

As noted in the results, the time frames for work reported by incumbents were generally less than found for executives in other settings. It is unclear whether this represents the influence of the budget cycle on planning processes or other factors, but it seems evident that many of the decisions facing the Army's executives meet or exceed the long-term requirements in other settings. While a process of extended tours may not be possible, a program for executive development will need consider how to provide some type of opportunity to develop skills in long-term decision making, perhaps through simulations or other activities.

Models and Approaches to Executive Development. The key implication from an internal development perspective is that, unlike in a corporate environment, the Army's

executive development system must be designed and structured to be consistent, systematic, and purposefully sequential for each of the organization's members throughout his or her total career. At the same time, there are positive aspects to this situation that are not found in industry.

In the more volatile corporate environment, both executive-level position functions and the potential incumbents available can change literally overnight, in contrast to the Army's environment that rests on a generally more predictable base of law, regulation, and formal commissions. Although the Army cannot recruit a mid-level manager or a new chief executive officer, it will rarely lose its most talented people to better offers or have its full executive complement changed through a merger or takeover.

The internal development process is exercised in a situation where the numbers and ranks of uniformed executive positions are prescribed by law, together with functions for both peacetime and war-fighting status. Thus, the number of incumbents who will move in and out of these positions, and the capabilities they will require generally can be known and planned for in advance. Further, the Army's rank-in-position context would appear to provide the ideal environment for a sequential and progressive executive development program based on the theories of organizational requirements and human conceptual capability described in this report.

Even though performance requirements for the executives in all large-scale organizations have been found to be similar, the demands on individuals would appear to be significantly greater in a formal organizations like the Army. In the corporate environment, organizations generally have a wider variety of strategies to ensure that executive-level requirements are fulfilled. Functions can be shared or tailored, or new executive-level positions can be quickly and easily created in response to changing events. This type of flexibility is largely lacking in the Army's environment of externally-determined position and rank structures. Thus, the demand on incumbents to personally fulfill the requirements of their positions is greater, as is the need for a systematic, career-long development program to ensure that the Army's future executive leaders are able to perform successfully.

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Appendix A

Analysis Categories for Content and Critical Incident Analysis of General Officer Interview Responses

DATA CATEGORIES FOR ANALYSIS

1. DUTIES AND FUNCTIONS

   a. Technical focus of position
   b. Decision discretion (rules, SOPs, judgments and decision rules)
   c. Technical qualifications required for position
   d. Subordinates and span of control
   e. Authority relationships
   f. Previous positions held

2. WORK AND ITS TIME SCALE

   a. Time horizon for longest task
   b. Nature of work
   c. Critical issues
   d. Problems in the work
   e. Creating climate
   f. Consensus building/developing influence base
   g. General/specialist
   h. Resourcing
   i. Initial objectives when entering position
   j. How to measure success

3. EXAMPLES OF SUCCESSFUL/UNSUCCESSFUL OUTCOMES

4. THE ORGANIZATION

   a. Tour of duty
   b. Organizational problems
   c. Changes in organization to make it work better
   d. Values and culture
   e. Indicators of health
   f. Ways of using people/parts of the organization

5. KEY PEOPLE

   a. Key other offices
   b. Authority relationships
   c. Networks

d. Other advisors

6. IMPORTANT OFFICER ATTRIBUTES

a. Perspective/view
b. Skills needed
c. Differentiation between ranks
d. View of organization
e. Collegiality
f. Failure to advance
g. Early identification
h. Self-knowledge
i. Managing change
j. Creation of image of self
k. Knowing impact of own policy
l. Coping skills
m. Stress tolerance
n. Ability to communicate with bottom
o. Prior qualifying assignments

7. NATIONAL OBJECTIVES

a. Degree of influence exerted on
b. Degree work is affected by

8. TRAINING AND DEVELOPMENT

a. Schools
b. Transitioning
c. Career development
d. Assessment
e. Mentoring and coaching
f. Other training opportunities
g. Personal development
h. Sabbaticals
i. Selection processes

Appendix B

Samples of Interview Responses by Category

1. DUTIES AND FUNCTIONS

ID NUMBER: 154

c. Technical qualifications.

(1) Must know or learn the POM process and budgeting.

(2) Must have the capability to know the processes of the Pentagon, and be able to transmit that to the states.

ID NUMBER: 155

c. Technical qualifications.

ID NUMBER: 156

c. Technical qualifications.

(1) A person in this position should have been a division commander, preferably in Europe.

(2) You need to be a people man, a trainer, and a maintenance type; they are interdependent on each other and contribute to what we call "readiness."

(3) Speaking the language is extremely helpful.

ID NUMBER: 157

c. Technical qualifications.

(1) I am management oriented and not technically oriented as were my predecessors. This orientation allows a more balance approach to problems.

(2) I need to know the personnel management systems of the Army and a little bit about the other services personnel management system in order to make comparisons.

(3) A person on my level must spend an inordinate amount of time problem framing. I would prefer the people at the lower levels make recommendations that would perk up through the system.

2. WORK AND ITS TIME SCALE

ID NUMBER: 118

f. Consensus building/developing influence base.

(1) Consensus building is a matter of talking to contemporaries when I visit the units about some things that are going on in other units that I think they ought to try.

(2) If you develop consensus among at least of significant portion of the leadership that this is something we should do, it will happen.

(3) There is also upward consensus building. i write trip reports in such a way that issues are highlighted if there is a definite Staff action involved.

ID NUMBER: 119

f. Consensus building/developing influence base.

(1) Some issues require consensus and other issues there simply isn't enough time. I think the secret to the hierarchical form of government, is to decide at each level what should or shouldn't be done and then decide if you are doing or not doing it.

ID NUMBER: 120

f. Consensus building/Developing influence base.

ID NUMBER: 121

f. Consensus building/developing influence base.

(1) I would characterize my leadership style as one of consensus. You build participation in early because if people are uncomfortable with a decision, it will be subverted.

(2) It seems to require more consensus the higher up you go.

(3) You won't always get consensus; then everybody listens to the boss and moves into the execution phase.

6. IMPORTANT OFFICER ATTRIBUTES

ID NUMBER: 125

b. Skills needed.

(1) Decentralization of responsibility with focus on development of individuals, e.g. provide opportunity for people to learn through trail and error and proper supervision.

(2) Ability to recover from mistakes which requires flexibility, sensitivity, intelligence, and tough mindedness.

(3) Must take general mission and make decisions based on previous guidance.

ID NUMBER: 127

b. Skills needed.

(1) Officers should be trained to look at things objectively and plan to make the organization move along smoothly, rather than showing the Army now innovative they are.

(2) It's a general's responsibility to know when to change a program; you have to be sensitive enough and smart enough to understand what needs to be changed at that moment, and then do it ¯ not have a committee sit down and decide.

(3) Senior people get paid for the skill and judgment to determine that very fine line between capacity and resolution to ge a job done, and no capacity. "Can do" attitudes without the capacity are very destructive.

(4) It's up to the generals to create good command environments.

ID NUMBER: 129

b. Skills needed.

(1) It is necessary to have all the technical skills such as: tactical skills, weapons skills, and maintenance skills, but the most important skills necessary to make a unit work are the leadership skills. As a division commander I had to devise special classes to teach young men these leadership skills. I found if company, battalion, and brigade commanders taught the case study method, the role model, and the role play method to lieutenants, it was very effective.

10. TRAINING AND DEVELOPMENT

ID NUMBER: 130

c. Career development.

(1) The experience that best prepared me for this type of role was my job as the Legislative Liaison.

(2) I am in fact an infantry officer; I have commanded at every level from platoon to brigade. That is broadening, too.

(3) I have had experience in this part of the world; I was in Vietnam, at Scofield Barracks in the 1950s, traveled to Thailand and the Philippines. Those things helped prepare me for a Pacific assignment.

(4) How do you predict how a person is going to do right from the beginning? The same question becomes "how do you form leaders as you go along?" The solution usually hardens into a bureaucratic system that becomes so inflexible and mechanical that it doesn't work. OPMS is an example of that.

(5) We must approach the problem of leadership development with an attitude, more than a system. We need a philosophy, not a set of rules or procedures.

(6) The courses for civilian development are there; to use them is a function of command. Many commanders refuse to let their people go.

(7) We should include SES in the revised general officer course.

ID NUMBER: 131

c. Career development.

(1) Where do we really train the two different commanders – the one in the field with combined arms and the one on the provisioner side?

(2) The bulk of the time for a senior officer is not in combat; senior people make the major policy decisions on acquisition or spending of resources. Our development program is totally inadequate with respect to managing these efforts.

Appendix C

Interview Protocol

INTERVIEW GUIDE FOR GO/SES RESEARCH

A. Principal duties and functions. (Your personal responsibilities -- the heart of your job.)

1. ASK THIS QUESTION FIRST ONLY FOR THOSE FOR WHOM WE DO NOT ALREADY KNOW THE ANSWER.

   Could you please describe your organization and how it fits into the overall operation of the Army -- where you get your requirements and what your organization does for the Army?

2. What are your personal objectives for your tenure as _____ and how do you plan to accomplish them?

3. What are the critical tasks that you alone can do?

4. What are the main obstacles you will need to overcome?

5. What are the important considerations you keep in mind in deciding how to deal with obstacles?

B. Your work and its time scale.

1. What are your long term goals and what are their time horizons -- including those of sufficient dur ion that you yourself may not complete them?

2. How will you know if you have been successful in your job?

3. If you are successful, what will it do for the Army today? Ten years from now?

4. What is the appropriate tour of duty for someone in your job?

C. Examples of a successful outcome and one not so successful.

1. Could you please illustrate by telling us about an event in which your actions led to an outcome that was unusually successful?

   a. When was this?
   b. Who else was involved?
   c. What actually happened? (Please describe what happened in detail.)
   d. What did you do that made a difference?
   e. What made the outcome unusually successful? (Why do you judge that it was so?)

2. Could you please illustrate by telling us about an event that did not have a particularly successful outcome?

a. When was this?
b. Who else was involved?
c. What actually happened? (Please describe the event in detail.)
d. What did you do and what could you have done that would have made a difference?
e. What made the outcome one that was not particularly successful? (Why did you judge that it was not?)

D. Your organization.

1. How do you resource your organization -- with people, information, and other assets -- not just the PPBS?

2. What kinds of indicators do you use to decide if your organization is in good health?

3. Is your current organization optimum for your current responsibilities? How would you change it if you could?

4. What is the best unit you have ever known? What made it good?

5. What is the worst unit you have ever known? What made it bad?

E. The key people with whom you work.

1. On Figure A, please tell us who the key people are with whom you work, how you influence them, and how they influence you.

2. Are these relationships optimum? How would you change them if you could?

3. How do you interface with your contemporaries in other services?

F. Your view of the important attributes of the professional officer and how they should be developed.

1. What abilities, special skills, or competencies will your successor need in this job?

2. Are we systematically growing your replacements the right way, considering assignment histories and schooling?

3. We are very interested in the processes of mentoring, coaching, and teaching.

a. What do you now do in this area for others? Are you now mentoring/coaching/teaching someone? Who and for what purpose?

b. How much do you try to influence their future assignments?

c. If you would, could you please tell us who you regard as your own mentor/coach/teacher?

d. Do you have and rely on advisors outside your organization? Outside the Army?

4. What was the best developmental experience or training you have had during the past five years? Ever?

5. What are the most important changes that need to be made in the development of officers? Where is the greatest change needed?

G. How the SES system functions.

1. If you have Senior Executive Service subordinates (or have had -- please say which), please answer the following.

a. How do the SES tie in with their uniformed counterparts?

b. Are they well utilized?

c. What are the obstacles to their proper utilization?

d. Are they sufficiently well prepared?

2. What do you feel needs to be done to make the SES more effective?

H. How national objectives impact on your role, and it on them.

1. What are the most important issues facing the Army and the nation? How can we best deal with them? How does your role uniquely bear on them?

2. What are your views about unified command and joint inter-service operations? (Have you had any experience with these?)